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VII. Notes on some Indian Wheatears. By CLAUD B. TICEHURST, M.A., B.C., M.R.C.S., M.B.O.U.

(Text-figure 8.)

It is always rather a source of satisfaction, I think, in these days of changes to be able to show that what some of the older authors wrote was perfectly correct, though somewhat lightly east aside by later writers. The birds—regular "bones of contention"—which are dealt with in this short paper are instances in point.

A. Œnanthe capistrata.

This species was described by Gould in his ' Birds of Asia,' and has been constantly muddled up by the older Indian writers with the bird which is now often called pleschanka, with the consequence that old records of these two birds want very carefully verifying. Thus Jerdon refers to capistrata when he speaks of leucomela; Barnes used morio, and Hume in his Catalogue also calls it morio ; later on he called it picata and also capistrata, and his final opinion seems to have been that the latter was a stage of plumage of the former. Opinion since then has somewhat oscillated between this idea and the acceptance of two distinct species. Thus Oates in the 'Fauna of British India' put them as distinct species and described the salient distinctions quite correctly (as I hope to show), though his statement that capistrata is a constant resident in the plains of India is quite erroneous; Dr. Hartert, on the other hand, in his Vög. pal. Fauna regards the latter bird as a white-headed variety of a dimorphic species.

I have examined a very large series (about 300) of these Wheatears in the British and Tring Museums, and in Mr. Whistler's and my own collections, and I have come to the conclusion that they must stand as separate species on the following grounds.

I. Characters in the male.

(a) In *capistrata* the crown is isabelline grey in winter wearing to grey in summer or nearly white : very often the

feathers have dark bases which show up when abraded, giving a streaked appearance; in *picata* the head is quite black like the mantle. It has been suggested that this is a dimorphism—a black-headed and white-headed form of one species—as is found in *leucopyga*; but in the latter the head is black or white or particoloured, quite different from the isabelline grey of *capistrata*: also it has been said that every intergradation between black-headed and white-headed forms occurs; a relatively small percentage certainly do occur in which the colours of the head are mixed, and with these I will deal later on.

(b) In the adults of both the mantle is glossy black: in the first winter *picata* this is usually as glossy as in the adult, but in the first winter *capistrata* it is always duller, a sooty or brownish black.

(c) On an average the wing of capistrata is longer than that of picata; the great number of measurements which I have carried out (over 60 of each) shows well how wrong an impression may be given by the statement that wing lengths vary between two extremes; thus the total variation in picata is from 89-99 mm. and in capistrata 90-99 mm., and judging by this one would at once say that the size is the same in both; but when analysed these measurements show that 73 per cent. of picata are between 91 and 94, and 80 per cent. of capistrata measure 94 or more, or put in another way graphically in the form of a curve, that of picata has fallen to zero just as that for capistrata has reached its apex.

II. Characters in the juvenile plumage.

There are plenty of specimens of juvenile *picata* in collections, but none for certain of *capistrata*. It is known that the juvenile of the former is dark brown above, but at Gilgit, where both species breed, two forms of juveniles occur, a darker and a lighter brown (quite apart from sex); this is very suggestive; moreover from Turkestan, whence I have only seen *capistrata*, from the same locality there is a juvenile of the lighter brown type. some Indian Wheatears.

III. Characters of the female.

(a) Here too one finds very distinct differences; in *picata* the adult has a blackish throat, not quite as pure as in the male, but still distinctly black; *capistrata* has a fulvous throat.

(b) In *picata* the back is very dark, in some almost black, in others blackish brown; in *capistrata* it is rather a sandy brown.

(c) The ear-coverts are as a rule darker in *picata* than in *capistrata*.

(d) In the first winter plumage the black throat of *picata* is indicated by a dusky patch varying somewhat in intensity; the back is not so dark as in the adult, but darker than in *capistrata*; however, I confess some first-year females may be difficult to place.

(e) As in the males, so in the females, capistrata averages larger. 72 per cent. of *picata* measure, wing 87-89 mm., and just on 70 per cent. capistrata measure 90 and upwards, and the curves of measurement show exactly the same characteristics as pointed out under the males.

IV. Geographical considerations.

There is no possible doubt that *picata* is the breeding bird of eastern Persia and of Persian and British Baluchistan, and is very common, whereas capistrata appears to be very rare; I have seen one breeling male from this area against about thirty of picata. In the N.W. Frontier Province both breed according to Whitehead (Ibis, 1909, p. 216-7), capistrata in the Safed Koh, picata in the Samana range, both at about the same altitude apparently. In Gilgit (Scully and Biddulph, Stray Feathers, x. pp. 112 & 266) both breed. as they probably do in Chitral, though Perreau (J. Bombay N. H. Soc. xvi. p. 50) only definitely states that capistrata breeds and picata "occurs." From Kashmir I have only seen picata; in Turkestan capistrata breeds in the neighbourhood of Samarkand, from which country I have not seen any picata. Thus it will be seen that there is a difference in breeding range indicated, though it must be remembered that over an

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enormous area in Afghanistan the status of the two birds is unknown.

Turning to winter distribution, differences are again found; picata is the bird of the whole of Baluchistan, eastern Persia down to S.W. Persia and also Sind; in this area capistrata is very rare, I find one record from Seistan, one from Baluchistan, and four or five only from Sind. My own experiences of these birds in Sind show well the difference in distribution : picata is a very common bird everywhere and I must have seen hundreds; of capistrata I obtained one female and thought I saw one male ! In the Punjab both species occur, but capistrata is by far the commonest in most parts. In Rajputana both occur, but picata is far the commoner; in the United Provinces only picata has been found. As Hume says (S. F. iii. p. 475), "as you go south and east towards their limit of distribution capistrata becomes rarer and rarer, and there is a belt of 100 to 200 miles wide where capistrata is rarely seen; on the other hand, in the extreme north-west (of the plains) capistrata is much the most common and there is an intermediate zone where both are equally plentiful."

In the N.W. Frontier Province there is only Whitehead's statement that *picata* is fairly common round Kohat and that *capistrata* is very abundant. Such differences in distribution both in summer and winter cannot be explained by the supposition of dimorphism : in other dimorphic Chats there is apparently no distributional difference.

That the white- and black-headed birds are not the result of age is quite certain. Biddulph (S. F. ix. p. 321) first pointed this out, and as one can easily pick out first-year birds from adults by their brown, not black, flight-feathers and primary coverts, so one can easily see that both forms occur in both ages. Biddulph and Scully got an enormous series of these birds in the breeding-season at Gilgit, and found that *picata* was far the commoner, *capistrata* was rare and some males were intermediate in the coloration of the erown; from the examination of these in the British Museum and the few others I have seen from the Punjab in 1922.]

winter, it seems reasonable to suppose that where the two birds meet hybridization occurs. It has been found to be the ease with Bulbuls, and I see no reason why it should not occur in these Chats.

B. Enanthe deserti oreophila.

This bird was described by Gould (Birds of Asia, iv. pl. 30, 1865) as *Saxicola montana*; Oberholser (Proc. U.S. Nat. Mus. xxii. 1901, p. 221) has subsequently shown that this name was preoccupied by Koch (Syst. B. Zool. 1816, p. 185) and suggested the name *oreophila*.

Oates (Faun. Brit. India, ii. p. 78) perfectly correctly indicates the differences between this bird and deserti, namely, the larger amount of white in the wing and larger size ; he also roughly indicated its different distribution, though he treats deserti (=d. atrogularis) and montana (=d. oreophila) as two species, and not races of one species as I should consider them to be. It is difficult to see exactly why Dr. Hartert (Vög. p. Faun. p. 684) relegates montana to the synonymy of atrogularis except that he thought that there was a great deal of individual variation in the amount of white in the wings and that, though these birds seemed large, there was apparently no geographical limit between the two forms. In consideration of these divergent views of Dr. Hartert and Oates I have gone into the question de novo. I have examined a very large series of Asiatic Desert Wheatears (over 200) contained in the British, Tring, and Bombay Museums, as well as in my own collection, and on this my opinions are based.

Firstly, the amount of white in the wings of males certainly varies somewhat, and I have only accepted as *oreophila* those in which the white on the inner webs of the primaries reaches to the quill. In the vast majority this distinction is very striking and the birds can be picked out at a glance: the white is very pure and sharply contrasted, and is found equally in adult and nestling plumage. There are very few birds which cannot be placed at once as either *oreophila* or *atrogularis*; in the latter some have white edging to the inner webs, in some it reaches further and even half the web may be white, and the different stages are found equally in adults and in birds of the year.

Secondly, on measuring I find that, as Oates said, the white-winged birds are on the whole larger.

50 5 oreophila.	50 3 atrogularis.
W. (95) 96-104, once 106.	W. 92–99 mm.
T. 67-71.	T. 64-71 mm.
Bill from base 17:5-19 (mostly 17:5-18:5).	Bill 16-18.5 (mostly
	16·5-17·5 mm.)

Though a good many of the two races overlap in bill measurement and about 15 per cent. of *oreophila* in wing measurement, yet the differences taken in conjunction with the whiteness of the wing constitute alone sufficient grounds for separation.



As regards females, many show no white in the wing at all and some show a varying amount, up to half the web being white, and most of these latter are large birds. I have

measured 50 females from many eastern localities and picked out haphazard, and on plotting their wing measurements (length against the number of specimens for each length) a very suggestive curve comes out (text-figure 8). Thus we see that the curve rises to an apex at 90–92, falls practically to zero at 94, and rises again to another apex at 96. Now no species, unless there was a large race of it included in the measurements, would show a curve of this nature. Moreover, these large females, such breeding birds as I have seen, come from the same localities only as do *oreophila* males.

Lastly, does this large white-winged race show a definite geographical distribution? I think there is no doubt that it does. It is a high alpine form and is the breeding bird of Thibet from Kuku Nor Mts. to Ladak, Baltistan, and probably Kashmir, and the mountains of western Chinese Turkestan, all localities of 12,000 ft. or more. Œ. atrogularis, on the other hand, does not breed in this area though it passes through on passage, and it breeds over a far wider area and almost certainly at lower elevations. It breeds in the Kirghis Steppes, S. Caucasus, Persia, Persian and British Baluchistan, Seistan, Yarkand plains, and probably lower elevations in Turkestan. The only locality where the two races appear to meet one another is in western Chinese Turkestan, and here there seems to be an altitudinal difference in distribution, and, possibly, the same thing occurs in other parts of Turkestan, though there are no specimens to prove it.

In winter the distribution of the two races again is different. *Œ. oreophila* is found in Seistan, E. Persia, Persian Baluchistan as far west at least as Gwadar, Afghanistan, Museat, Kashmir (October) and, according to Oates, Socotra; on passage I have seen it from Gharwal in the Himalayas, also near Bokhara : Scully noted it arriving at Wakhan in the Lower Pamirs in the last half of April. *Œ. atrogularis*, on the other hand, has a much wider distribution and is found in Nubia, Sudan, Mesopotamia, plains of northern India east to the United Provinces, and occasionally even western Bengal (from none of these localities have I seen *oreophila*),

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S. Arabia, whole of Persia and Baluchistan, and some may even winter in Turkestan.

Œ. oreophila evidently breeds later than *atrogularis*, as would be expected; the latter has young on the wing by mid-May and the adults are fully moulted by mid-July; whereas in *oreophila* young are not on the wing till the end of July and the adults have not fully moulted till the end of August.

The name albifrons for the bird I have called atrogularis has been introduced in recent years in some works ('Handlist of British Birds'; B. O. U. List, 1915; 'Practical Handbook of British Birds,' etc.), but quite incorrectly as it is clearly preoccupied (Rüppell, N. Wirbelt. 1837, p. 78). It is a great pity that such names which have never been widely used should have been allowed to creep into authoritative nomenclatural lists without very careful checking.

The Desert Wheatears will then stand as follows :---

- *Enanthe deserti des rti* (Temm.), Pl. Col. 359, fig. 2, 1825. Egypt, Nubia, Arabia.
- *Enanthe deserti homochroa* (Tristr.), Ibis, 1859, p. 59. Sahara east to Wadi Natrun in Lower Egypt.
- *Enanthe deserti atrogularis* (Blyth), J. A. S. B. xvi. 1847, p. 131. S.W. Asia east to British Baluchistan, Russian and Chinese Turkestan.
- *Enanthe deserti orcophila* (Oberh.), Proc. U. S. Nat. Mus. xxii. 1901, p. 221. Tibet, Ladak, Baltistan (= montana of Gould).

The two Indian Pied Wheatears will stand as follows :---

- *Œnanthe picata* (Blyth), J. A. S. B. xvi. 1847, p. 131.
 E. Persia, Persian and British Baluchistan, N.W.
 Frontier Province to Gilgit.
- *Enanthe capistrata* (Gould), B. of Asia, iv. 1865, pl. 28. N.W. Frontier Province, East Afghanistan to Samarkand.

[Ibis,